

Remarks/Arguments:

Claims 1-8 are pending in the application. Claims 1, 7 and 8 are rejected. Claims 2-6 are objected to. No claims have been amended. No new matter has been added.

On page 2, the Official Action rejects claims 1, 7 and 8 under 35 U.S.C. §103(a) as being unpatentable over Ura (EP 1 278 396) in view of Nakama (JP 05-188977). It is respectfully submitted, however, that the claims are patentable over the art of record for at least the reasons set forth below.

Applicants' invention as recited by claim 1, includes features which are neither disclosed nor suggested by the art of record, namely:

... howling detecting section for ... outputting a howling detection signal ...

... a periodic signal detecting section for ... outputting a periodic detection signal *indicating whether or not the time progression ... have periodicity* ...

... a howling deciding section ... *decides that howling occurs when the howling detection signal indicates howling is detected and the periodic detection signal indicates that the time progression ... does not have periodicity.* (Emphasis Added)

Claim 1 relates to 1) a howling detecting section, 2) a periodic signal detecting section and 3) a howling deciding section. The howling deciding section decides that howling has occurred when the howling detecting section detects howling and the periodic signal detecting section does not detect periodicity. Support for these features can be at least found on page 23 of the originally filed application and furthermore in Fig. 2. No new matter has been added.

In Fig. 1, Ura suggests a howling suppression section 105 which suppresses howling responsive to the howling detecting section 104. When howling detecting section 104 detects howling, howling suppression section 105 is controlled to suppress the howling. Ura, however, does not suggest a howling deciding section which decides howling based on howling detection (whether howling was detected or

not) and periodicity detection (whether the signal has periodicity or not). Ura does not determine whether the signal has periodicity and then determine howling based on the periodicity.

In similar art, paragraph [0005] and [0006] of Nakama suggests that a cyclic signal is extracted from the noise detector (Nakama is detecting cyclic noise). An adaptive filter is then used to filter out the cyclic noise so that it is not heard by the user. Nakamas' cyclic signal is periodic noise and is not a signal that indicates whether the time progression of levels has periodicity (Nakamas' cyclic signal does not indicate whether a signal is periodic or not).

Furthermore, combining Nakama with Ura would not suggest Applicants' claim 1. Inputting Nakama's cyclic noise signal into Ura's howling detecting section 104 would not be the same as Applicants' claim 1 because Nakamas' cyclic noise signal does not indicate whether the levels of the frequency band signals have periodicity or not.

Furthermore, Nakama suggests that when the signal **has periodicity**, howling is suppressed. This is the opposite of Applicants' claim 1 where howling is suppressed when the signal **does not have periodicity**.

Applicants' claim 1 is different then the art of record, because of a howling deciding section which decides that howling occurs based on periodic detection signal and a howling detection signal. Specifically, the periodic detection signal indicates whether or not the levels in the frequency bands have periodicity or not ("*... howling detecting section for ... outputting a howling detection signal ... a periodic signal detecting section for ... outputting a periodic detection signal indicating whether or not the time progression ... have periodicity ...a howling deciding section ... decides the howling occurs when the howling detection signal indicates howling is detected and the periodic detection signal indicates that the time progression ... does not have periodicity*").

As shown in Applicants' Fig. 2, howling deciding section 107 decides that howling occurs based on a periodic detection signal output from periodic signal detecting section 106 and howling detection signal output by howling detecting

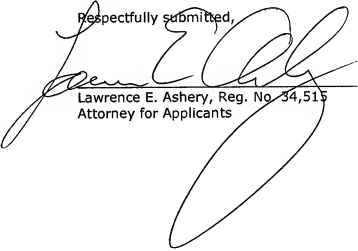
section 105. Periodic signal detecting section 106 analyzes the levels of the frequency bands input through level calculating section 104. A yes/no signal is then output by periodicity deciding section 115 to indicate whether the levels have periodicity or not. Similarly, howling detecting section 105 analyzes the levels output from level calculating section 104 and outputs a howling detection signal indicating whether howling has been detected or not. Howling deciding section 107 then utilizes both periodic detection signal and the howling detection signal to decide whether howling has occurred. Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Claim 8 includes similar features to claim 1. Thus, claim 8 is also patentable over the art of record for at least the reasons set forth above.

Dependent claims 2-7 include all of the features of the claims from which they depend. Thus, claims 2-7 are also patentable over the art of record for at least the reasons set forth above.

In view the arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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